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ABSTRACT

This document presents a model of educational outcomes for learners in grade 4 and the indicators of these outcomes for all students. This includes students identified as having disabilities or developmental delays. The document begins with a presentation of the conceptual model, with Educational Resources (Inputs and Contexts) influencing Learning Opportunity and Process. These, in turn, influence the Outcome Domains, which have a return influence on both the Educational Resources and the Learning Opportunity and Process. The Outcome Domains include Presence and Participation, Family Involvement/Accommodation and Adaptation, Physical Health, Responsibility and Independence, Contribution and Citizenship, Academic and Functional Literacy, Personal and Social Adjustment, and Satisfaction. The conceptual model is extended by identifying outcomes within each outcome domain, with "outcomes" being defined as the results of learning experiences or interactions between children and the educational process. Indicators, which are numbers or other symbolic representations that can be used to determine whether desired outcomes are achieved, are then presented. Finally, examples of possible sources of data for the seven indicators within the Physical Health domain are provided. (JDD)

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Educational Outcomes and Indicators for Grade 4

ED 374 624

NATIONAL CENTER ON EDUCATIONAL OUTCOMES

The College of Education
UNIVERSITY OF MINNESOTA

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August, 1994

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The National Center on Educational Outcomes (NCEO) was established in October, 1990, to work with state departments of education, national policy-making groups, and others to facilitate and enrich the development and use of indicators of educational outcomes for students with disabilities. It is believed that responsible use of such indicators will enable students with disabilities to achieve better results from their educational experiences. The Center represents a collaborative effort of the University of Minnesota, the National Association of State Directors of Special Education, and St. Cloud State University.

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Educational Outcomes and Indicators for Grade 4

The current emphasis on educational reform and accountability reflects the public's desire to know the results of education for all of America's students. There is great interest in identifying the important outcomes of education and the best indicators of those outcomes.

The **National Center on Educational Outcomes** (NCEO) is working with federal and state agencies to facilitate and enhance the collection and use of data on educational outcomes for students with disabilities. In doing so, it has taken an inclusive approach, identifying a conceptual model of outcomes that applies to all students, not just to students with disabilities. Hundreds of educators, administrators, policymakers, and parents have participated in a consensus-building process using this model as a framework to identify key indicators of important educational outcomes for all students.

The purpose of this document is to present a model of educational outcomes for learners in grade 4 (or approximately 9 years of age) and the indicators of these outcomes for all students. This includes students identified as having disabilities or developmental delays. In the pages that follow, you will find:

- A conceptual model of domains and outcomes
- Possible indicators for each outcome
- Steps toward identifying sources of data for indicators

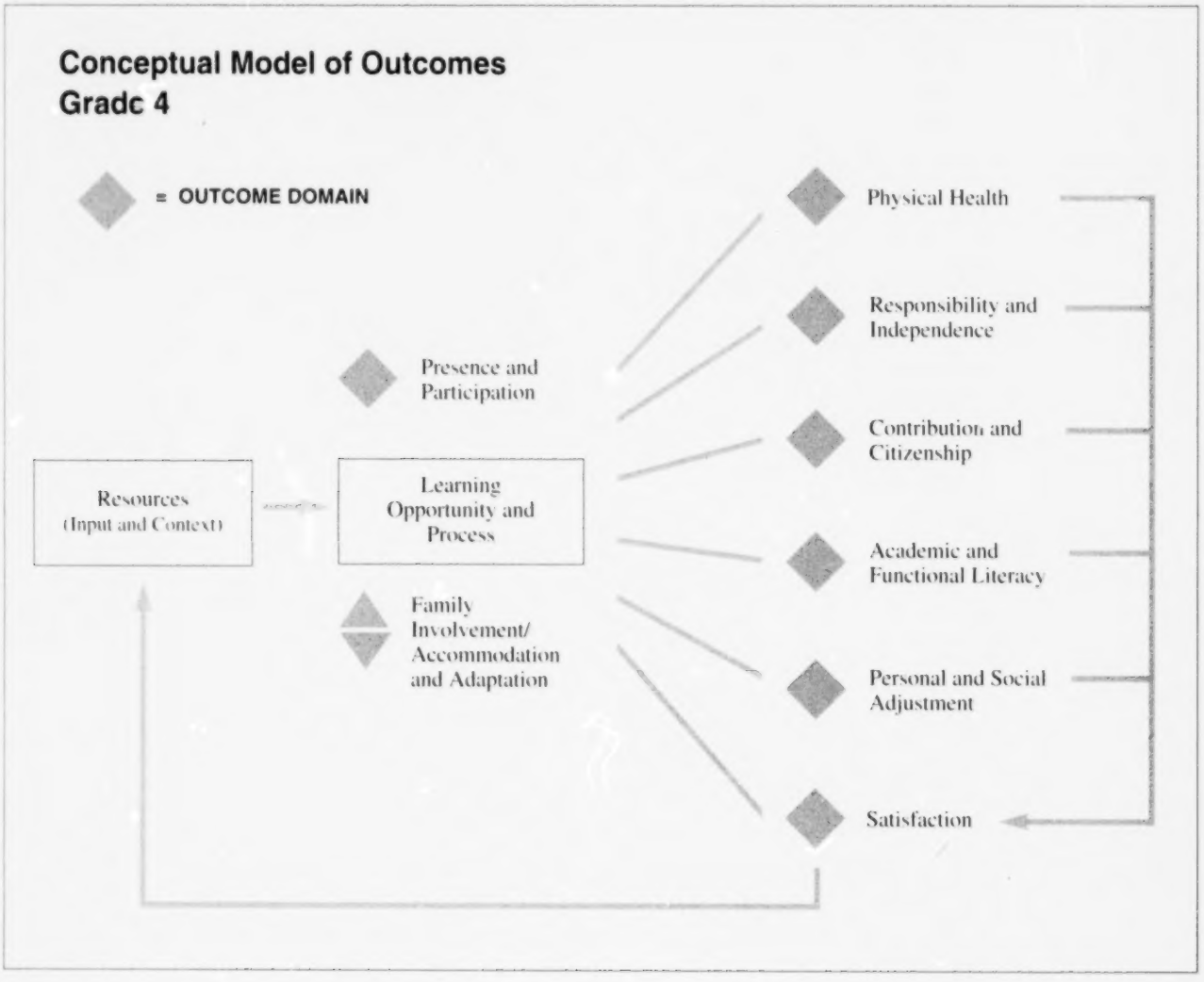
We at the National Center on Educational Outcomes are indebted to many groups and individuals who provided feedback to us (see Contributors listed at the end of this document).We believe that the model and indicators for grade 4 outcomes presented here will serve as a point from which to extend discussion as policymakers, states, and local school districts identify the important outcomes of education.

Conceptual Model of Domains and Outcomes

The conceptual model depicted below shows the complete educational model, with Educational Resources (Inputs and Contexts) influencing Learning Opportunity and Process. These, in turn, influence the Outcome Domains (the shaded areas), which have a return influence on both the Resources and Opportunity and Process.

Two of the shaded domains, Presence and Participation, and Family Involvement/Accommodation and Adaptation, are placed next to Learning Opportunity and Process. This placement results from the belief that these domains may be part of the process but still need to be measured. All domains (indicated by ◆) are treated equally as outcome domains.

Family Involvement is included with Accommodation and Adaptation in the conceptual model at the grade 4 level, just as it was at the early childhood levels (ages 3 and 6). This reflects the need to focus on outcomes related to the involvement and support of the family and community at the early age and grade levels.



The conceptual model is extended by identifying outcomes, indicators of the outcomes, and finally, sources of data for the indicators.

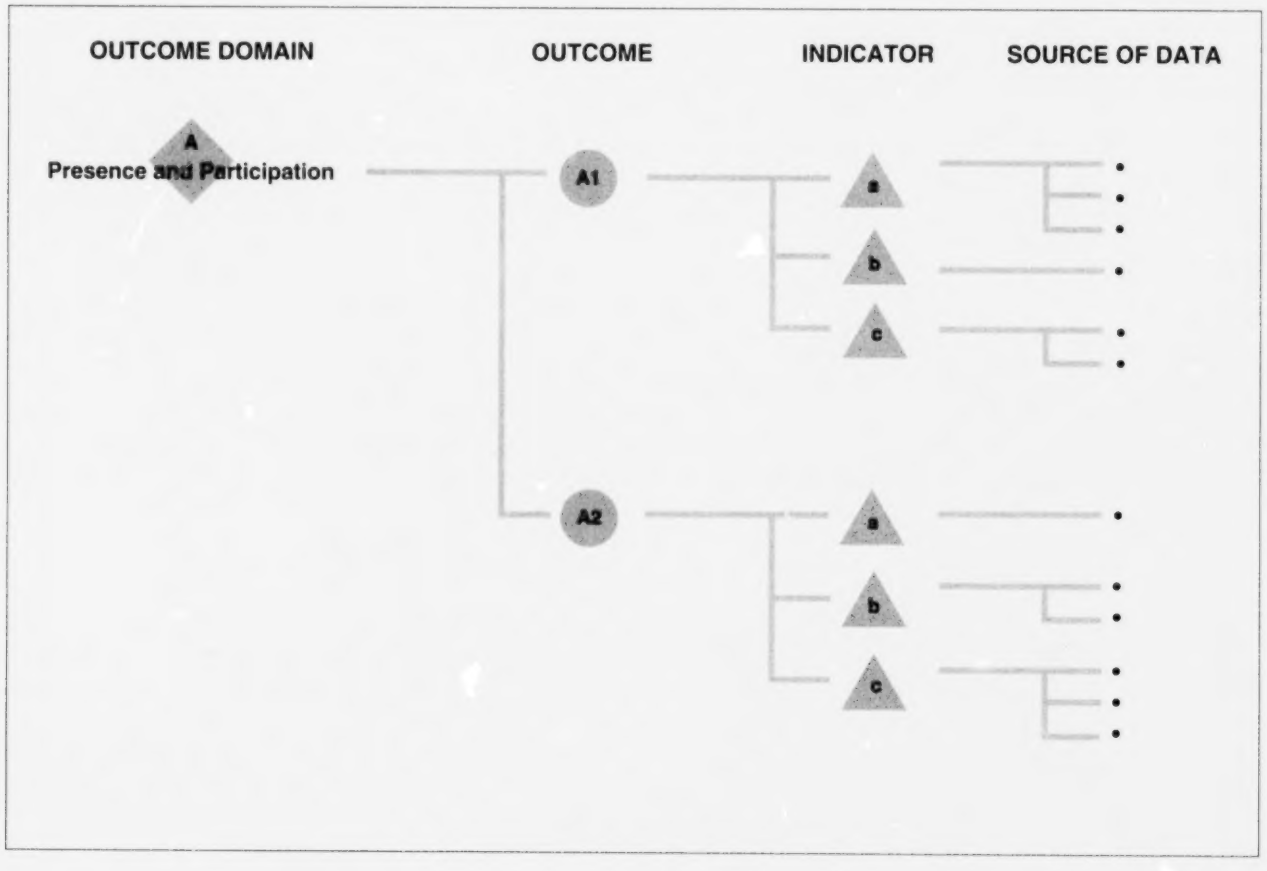
"Outcomes" are the results of learning experiences or interactions between children and the educational process.

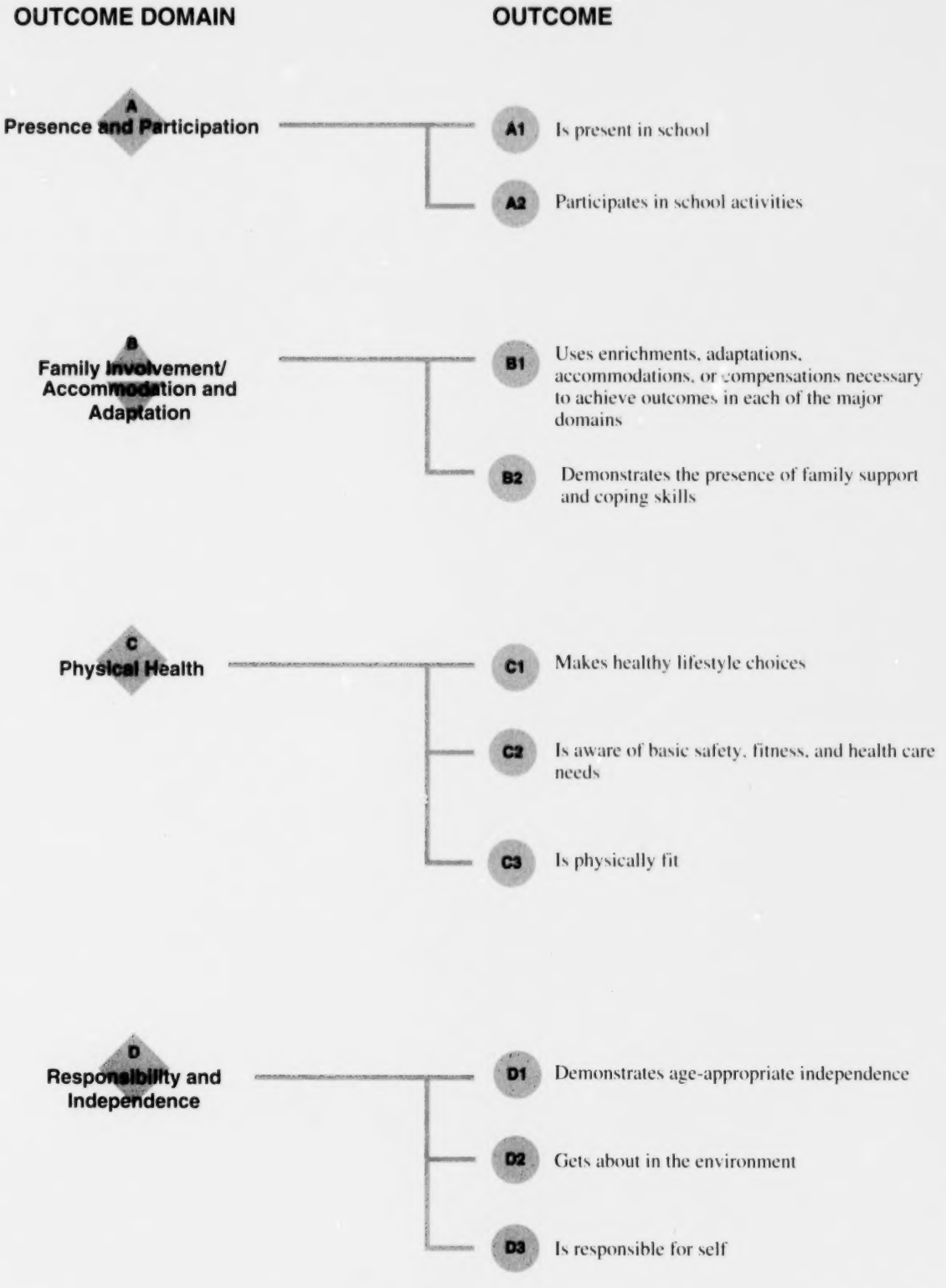
"Indicators" are numbers or other symbolic representations that can be used to determine whether desired outcomes are achieved.

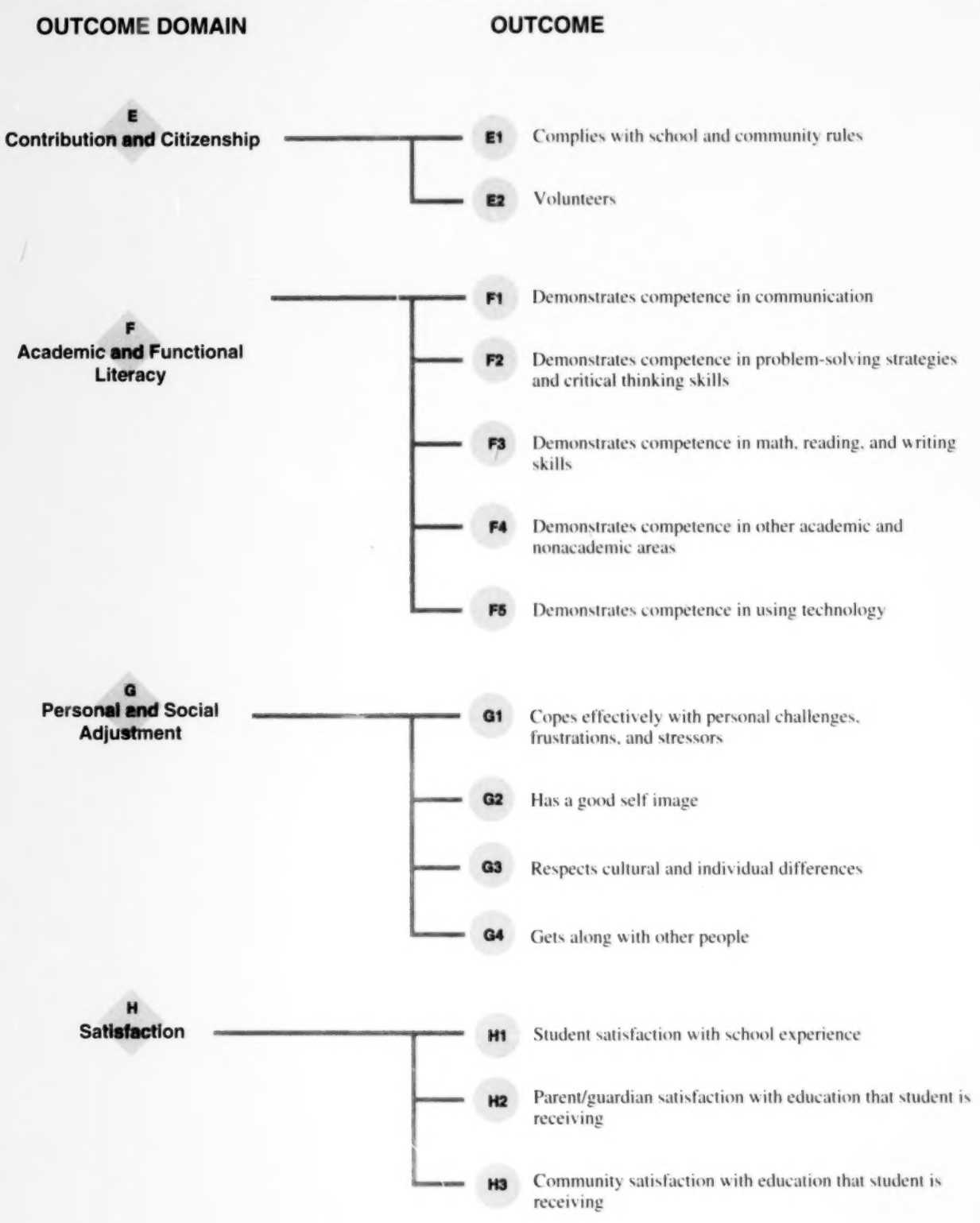
The relationships among these components are shown below for the Presence and Participation domain. Throughout this document outcome domains are represented by shaded diamonds, outcomes are represented by shaded circles, and indicators are represented by shaded triangles. Sources of data, represented below as small dots, are not fully developed for the eight domains in this document.

Outcomes for the eight domains are presented on pages 4 and 5. Indicators are listed for each outcome within outcome domains on pages 8-15. Sample sources of data for the Physical Health outcome domain are presented on page 17.

Within this document, outcome domains, outcomes, and indicators are assigned letters and numbers to help in referencing them. These letters and numbers do not imply a hierarchical order of any kind.




OUTCOME DOMAIN
OUTCOME
A
Presence and Participation
A1
Is present in school
A2
Participates in school activities
B
Family Involvement/ Accommodation and Adaptation
B1
Uses enrichments, adaptations, accommodations, or compensations necessary to achieve outcomes in each of the major domains
B2
Demonstrates the presence of family support and coping skills
C
Physical Health
C1
Makes healthy lifestyle choices
C2
Is aware of basic safety, fitness, and health care needs
C3
Is physically fit
D
Responsibility and Independence
D1
Demonstrates age-appropriate independence
D2
Gets about in the environment
D3
Is responsible for self


OUTCOME DOMAIN
OUTCOME
E
Contribution and Citizenship
E1
Complies with school and community rules
E2
Volunteers
F
Academic and Functional Literacy
F1
Demonstrates competence in communication
F2
Demonstrates competence in problem-solving strategies and critical thinking skills
F3
Demonstrates competence in math, reading, and writing skills
F4
Demonstrates competence in other academic and nonacademic areas
F5
Demonstrates competence in using technology
G
Personal and Social Adjustment
G1
Copes effectively with personal challenges, frustrations, and stressors
G2
Has a good self image
G3
Respects cultural and individual differences
G4
Gets along with other people
H
Satisfaction
H1
Student satisfaction with school experience
H2
Parent/guardian satisfaction with education that student is receiving
H3
Community satisfaction with education that student is receiving

Possible Indicators for Grade 4 Outcomes

Indicators are numbers or other symbolic representations of outcomes. They can be viewed over time to gather information on trends. At the national and state levels, indicators usually are presented as percentages or rates.

State and local district personnel who are interested in specific students can easily translate the indicators presented here into individually-based indicators. A guide to these translations is included in the supporting document entitled *Self-Study Guide to the Development of Educational Outcomes and Indicators* (see p. 25).

Lists of possible indicators for educational outcomes at grade 4, which were identified through the consensus-building process, are presented on the following pages. It is important to think of these as a framework within which outcomes, indicators, and sources of data can be generated.

= OUTCOME = INDICATOR

A DOMAIN

Presence and Participation

A1 Is present in school

- a — Rate of absenteeism during school year (differentiated for reasons of suspension, medical/health, truancy, and other)
- b — Percent of students excluded from their typical school placement
- c — Percent of students attending specific settings (for example, separate schools, residential settings, and homebound)

A2 Participates in school activities

- a — Percent of time students participate actively in a variety of meaningful learning activities and routines in general education classrooms
- b — Percent of time students participate actively in extracurricular activities during school year
- c — Percent of students who participate in district, state, and national testing programs (including alternative testing programs)
- d — Percent of students who move between school settings during the year (mobility rate)

= OUTCOME = INDICATOR

B
DOMAIN

Family Involvement/ Accommodation and Adaptation

B1 **Uses enrichments, adaptations, accommodations, or compensations necessary to achieve outcomes in each of the major domains**

- a — Percent of students who demonstrate successful enrichments, adaptations, accommodations, or compensation skills required to get around in their environments
- b — Percent of students who demonstrate successful enrichments, adaptations, accommodations, or compensation skills required to communicate
- c — Percent of students who demonstrate successful enrichments, adaptations, accommodations, or compensation skills required to read (or receive information from materials usually printed) and/or perform other academic skills
- d — Percent of students who demonstrate successful enrichments, adaptations, accommodations, or compensation skills required to participate in activities in home, school, and community environments
- e — Percent of students who demonstrate successful enrichments, adaptations, accommodations, or compensation skills required to manage personal needs in home, school, and community environments

B2 **Demonstrates the presence of family support and coping skills**

- a — Percent of families using community resources and programs needed by students
- b — Percent of families participating in the education of their children
- c — Percent of families providing environments supportive of their children's education and learning

● = OUTCOME ▲ = INDICATOR

C DOMAIN

Physical Health

C1 **Makes healthy lifestyle choices**

- a. Percent of students who are aware of nutritional choices
- b. Percent of students who participate regularly in sports, recreational, and/or exercise activities

C2 **Is aware of basic safety, fitness, and health care needs**

- a. Percent of students who are aware of basic safety precautions and procedures
- b. Percent of students who are aware of basic fitness needs
- c. Percent of students who are aware of basic health care needs
- d. Percent of students who are aware of dangers of use and abuse of tobacco, alcohol, drugs, poisons, and medicines

C3 **Is physically fit**

- a. Percent of students who meet individualized standards of physical fitness

= OUTCOME = INDICATOR

D DOMAIN

Responsibility and Independence

D1 **Demonstrates age-appropriate independence**

- a. Percent of students who act responsibly in a family, group, or individual situation
- b. Percent of students who initiate and follow through on activities

D2 **Gets about in the environment**

- a. Percent of students who can get to and from a variety of destinations
- b. Percent of students who have an emerging awareness of the larger community

D3 **Is responsible for self**

- a. Percent of students who can attend to their own hygiene needs
- b. Percent of students who take care of their own belongings
- c. Percent of students who begin to look to others for support

● = OUTCOME ▲ = INDICATOR

E
DOMAIN

Contribution and Citizenship

E1 **Complies with school and community rules**

- a. Percent of students who are beginning to act as responsible citizens (for example, recycling, helping each other, caring about the environment, respecting property)
- b. Percent of students who have been repeatedly suspended or subjected to disciplinary actions
- c. Percent of students who have an understanding of work roles and responsibilities as students and citizens

E2 **Volunteers**

- a. Percent of students who participate in school and classroom governance activities
- b. Percent of students who use their interests and abilities to benefit others and contribute to the group

= OUTCOME = INDICATOR

F
DOMAIN

Academic and Functional Literacy

F1 **Demonstrates competence in communication**

- a — Percent of students who use and comprehend language that effectively accomplishes the purpose of the communication

F2 **Demonstrates competence in problem-solving strategies and critical thinking skills**

- a — Percent of students who demonstrate problem-solving and critical thinking skills

F3 **Demonstrates competence in math, reading, and writing skills**

- a — Percent of students who demonstrate competence in math to function in home, school, and community environments
- b — Percent of students who demonstrate competence in reading to function in home, school, and community environments
- c — Percent of students who demonstrate competence in writing to function in home, school, and community environments

F4 **Demonstrates competence in other academic and nonacademic areas**

- a — Percent of students who demonstrate competence in other academic domains (science, language, geography, social studies) to function in home, school, and community environments
- b — Percent of students who demonstrate competence in cultural domains (fine and performing arts) to function in home, school, and community environments

F5 **Demonstrates competence in using technology**

- a — Percent of students who apply technology to enhance functioning in home, school, and community environments

● = OUTCOME ▲ = INDICATOR

◆ DOMAIN

Personal and Social Adjustment

Q1 **Copes effectively with personal challenges, frustrations, and stressors**

- ▲ a — Percent of students who deal appropriately with frustration and unfavorable events
- ▲ b — Percent of students who express feelings and needs in socially acceptable ways
- ▲ c — Percent of students whose behavior reflects an appropriate degree of self-control

Q2 **Has a good self image**

- ▲ a — Percent of students who perceive themselves as worthwhile
- ▲ b — Percent of students who perceive themselves as competent
- ▲ c — Percent of students who demonstrate knowledge of and acknowledge their own limitations

Q3 **Respects cultural and individual differences**

- ▲ a — Percent of students who respect and show concern for others
- ▲ b — Percent of students who accept cultural, racial, ability, and family differences
- ▲ c — Percent of students who participate in making the community welcoming and inclusive of diversity

Q4 **Gets along with other people**

- ▲ a — Percent of students who have friends their own age and are part of a social network
- ▲ b — Percent of students who can work cooperatively

● = OUTCOME ▲ = INDICATOR

H DOMAIN

Satisfaction

H1 **Student satisfaction with school experience**

- a — Percent of students who enjoy learning and are satisfied with their school accomplishments
- b — Percent of students who indicate they receive what they need to be successful

H2 **Parent/guardian satisfaction with education student is receiving**

- a — Percent of parents/guardians who are satisfied with their students' level of accomplishment in academic and social areas
- b — Percent of parents/guardians who are satisfied with what is being provided in school (curriculum, extracurricular, teaching, and supports)

H3 **Community satisfaction with education that student is receiving**

- a — Percent of community (teachers, policymakers, employers, general public) satisfied with students' accomplishments
- b — Percent of community (teachers, policymakers, employers, general public) satisfied with what is being provided in school (curriculum, extracurricular, teaching, and supports)

Steps Toward Identifying Sources of Data for Indicators

NCEO staff and advisors are currently in the process of identifying possible sources of data for each of the indicators that has been identified through the consensus-building process. Examples of possible sources of data for the seven indicators within the Physical Health domain are provided on this page. These were generated by NCEO staff.

Before listing the possible sources of data for all outcome indicators in the NCEO model, experts will be asked to provide their ideas about the best data sources.

C DOMAIN

Physical Health

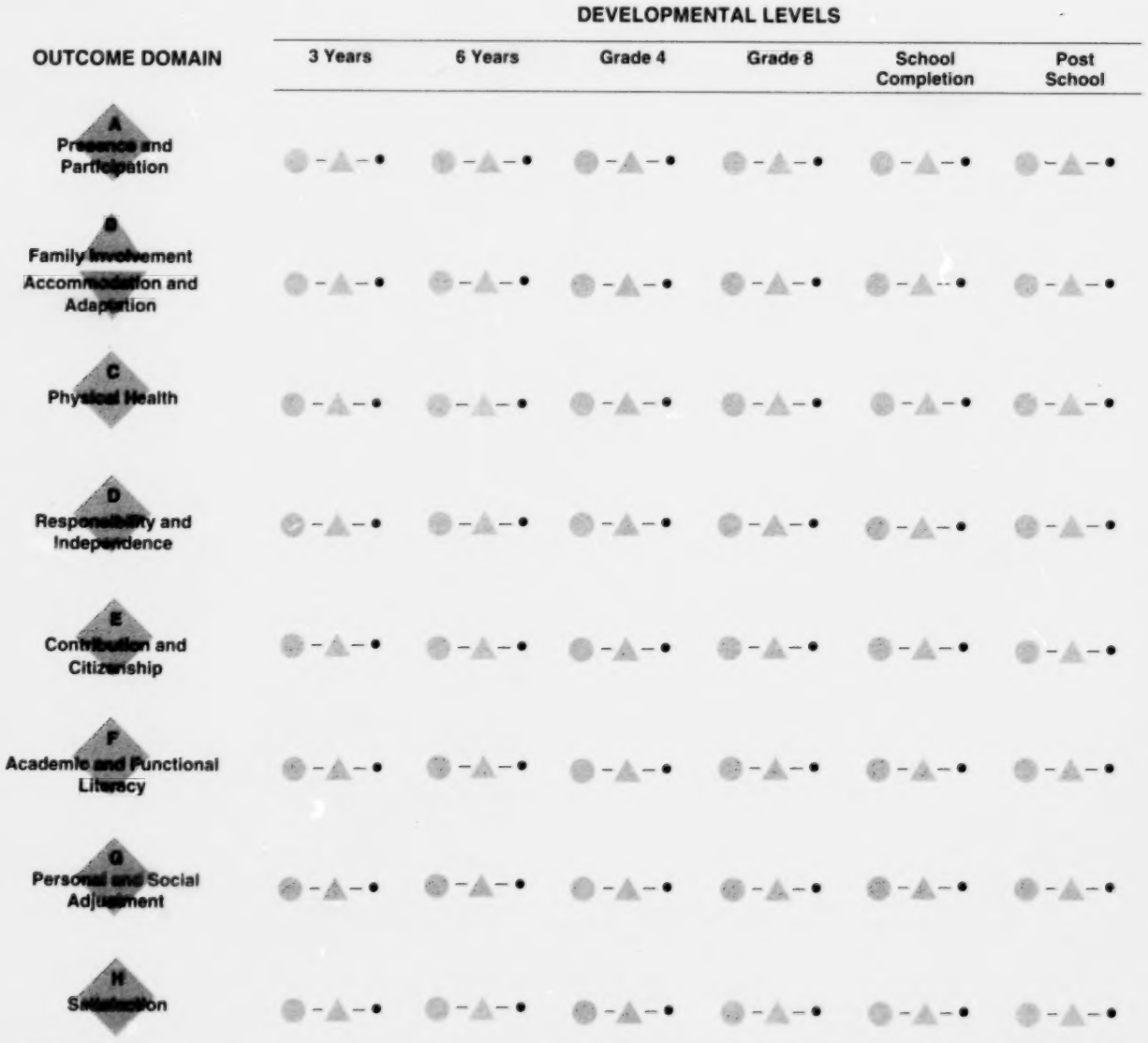
OUTCOME		INDICATOR		POSSIBLE SOURCE OF DATA
C1	**Makes healthy lifestyle choices**	a	Percent of students who are aware of nutritional choices	• Student interview • Parent interview
		b	Percent of students who participate regularly in sports, recreational, and/or exercise activities	• School administrative records • Teacher survey • Participation records from community agencies
C2	**Is aware of basic safety, fitness, and health care needs**	a	Percent of students who are aware of basic safety precautions and procedures	• Knowledge test results • Adaptive behavior scales or checklists
		b	Percent of students who are aware of basic fitness needs	• Physical education exam scores • Student interview
		c	Percent of students who are aware of basic health care needs	• Knowledge test results • Health examination scores
		d	Percent of students who are aware of the dangers of use and abuse of tobacco, alcohol, drugs, poisons, and medicines	• Student interview • Health examination scores
C3	**Is physically fit**	a	Percent of students who meet individualized standards of physical fitness	• Physical education exam scores • Fitness test results • Teacher questionnaire

Identifying and Defining the Important Outcomes of Education

The model and lists of domains, outcomes, and indicators that have been presented in this document are viewed as providing a framework and examples. From these examples, states, districts, and schools can begin to identify and define the important outcomes of education for all of their students.

This document is a summary of the results of consensus-building exercises focused on grade 4 only. NCEO has used the same consensus-building process to identify outcomes and indicators for the developmental levels indicated in the figure below.

These are available in the same format as the grade 4 outcomes and indicators.



Contributors to the Development of Grade 4 Outcomes

Many individuals contributed to the development of the conceptual model, outcomes, and indicators presented here. Stakeholders participated in an intensive process of consensus building using a computerized multiattribute analysis procedure. Other contributors, including NCEO's Advisory Committee members, read and reacted to various working papers, model prototypes, and questionnaires. With extreme gratitude we recognize and thank these contributors.

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Supporting Documents

The following documents are available for the reader who is interested in additional information on the model and its underlying assumptions, the process through which the current model and indicators were developed, or how states and school districts apply the model to meet their needs.

A Conceptual Model of Educational Outcomes for Children and Youth with Disabilities (Working Paper 1) July, 1991.

This paper discusses terminology and assumptions underlying the development of a model of outcomes for children and youth with disabilities. It presents alternative models, identifies unresolved issues, and represents a preliminary statement of models and issues.

Responses to Working Paper 1: Conceptual Model of Educational Outcomes for Children and Youth with Disabilities (Synthesis Report 3) June, 1992.

This paper is a synthesis of the responses from a large number of individuals who were invited to react to the educational outcomes model and the assumptions, definitions, and unresolved issues presented in Working Paper 1. Patterns in responses to specific issues including support, concerns, suggested refinements, and sample comments are included.

An Evolving Conceptual Model of Educational Outcomes for Children and Youth with Disabilities (Working Paper 2) August, 1992.

This paper is an extension of Working Paper 1, with revised definitions and assumptions, and an updated model of educational and enabling outcomes for students with disabilities. An initial list of indicators of each outcome domain is included.

Developing a Model of Educational Outcomes (October, 1993).

This report summarizes the process and stages leading to the development of NCEO's conceptual model, indicators, and sources of data.

Consensus Building: A Process for Selecting Educational Outcomes and Indicators (November, 1993).

This report details the consensus process used by NCEO to produce lists of outcomes and indicators.

Self-Study Guide to the Development of Educational Outcomes and Indicators (September, 1993).

This guide provides state and district personnel with information on how to use NCEO's model in developing a set of outcomes and indicators.

Information on these materials can be obtained by calling NCEO Publications (612-626-1530) or by writing:

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75 East River Road
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